KCU-02

Monitoring Module / RS485 Module

固也泰電子工業有限公司
KUTAI ELECTRONICS INDUSTRY CO., LTD.

ISO 9001
BSMI

Headquarters : No.3, Lane 201, Chien Fu ST., Chyan Jenn Dist., Kaohsiung, TAIWAN
Tel : + 886-7-8121771 **Fax :** + 886-7-8121775 **URL :** http://www.kutai.com.tw

SECTION 1 : INTRODUCTION

The KCU-02 is the RS485 module that is designed to enable the Kutai Electronics genset controllers (AMF-10, GCU-100, GCU-3000) to be operated and monitored remotely.

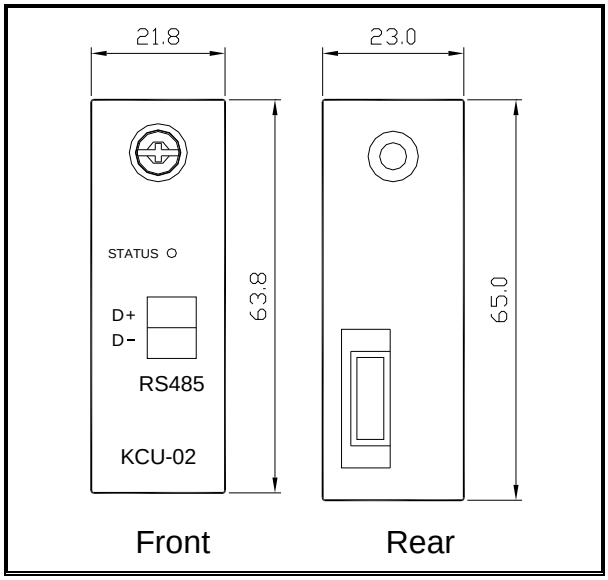
Via the designated operation software (Please reference from KCU-02 software user manual) user can program and change parameters remotely instead of accessing program through the controller in person.

To access KCU-02 from the PC, user must be equipped with a RS232 – RS485 adapter or USB – RS485 adapter.

MAIN CHARACTERISTICS :

- The KCU-02 software interface is user friendly which makes it easy for user to monitor and change program setting remotely.
- The RS485 programmable range from local connection (Slave Address) is 1 ~ 99.
- During communication with the controller, the KCU-02 automatically programs the RS485 protocol slave address and transmitting rate according to the controller's system parameter setting.

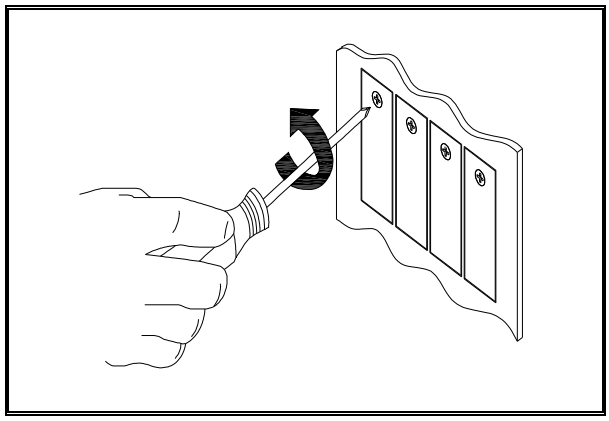
SECTION 2 : DIMENSION



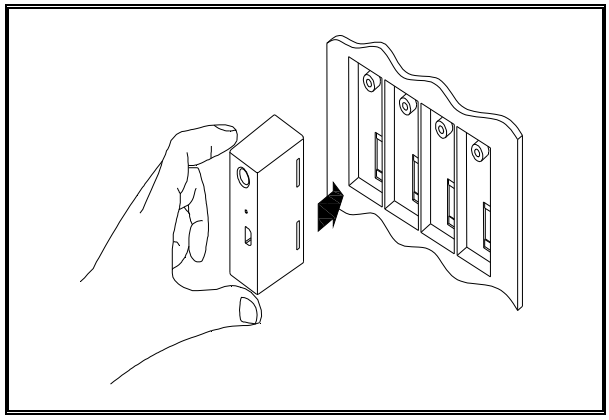
SECTION 3 : INSTALLATION

Disconnect controller power source and follow the below illustrations to complete the installation of KCU-02.

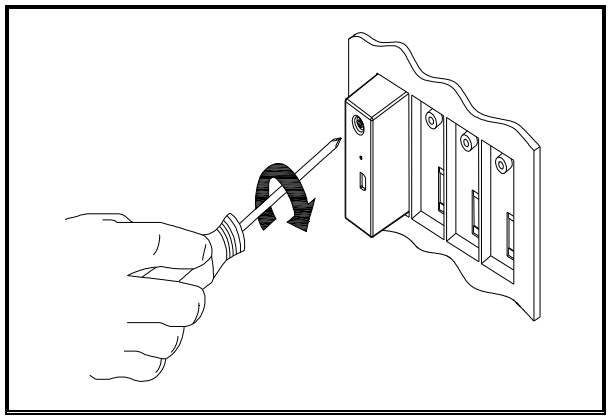
Step 1：Remove slot cover from the back of controller.



Step 2：Insert KCU-02 into the designated slot.



Step 3：Tighten the screw.



Step 4：Start up the controller and operate through the controller front panel and enter system setting to program corresponding startup settings (Remote operation activation).

The KCU-02 currently supports AMF-10, GCU-100, GCU-3000, ATS-22, ATS-33, ATS-34 and ATS-PLC etc. controllers. The followings are the basic description of operation settings. For more detail information, please reference from the controller's operation manual.

AMF-10 & GCU-100	
ITEM	**DESCRIPTION**
54	Allows remote operation
55	KCU-02 module address setting
54	KCU-02 module and PC baud rate setting

GCU-3000	
ITEM	**DESCRIPTION**
69	Allows remote operation
70	KCU-02 module address setting
71	KCU-02 module and PC baud rate setting

ATS-22	
ITEM	**DESCRIPTION**
33	Allows remote operation
34	KCU-02 module address setting
35	KCU-02 module and PC baud rate setting

ATS-33	
ITEM	**DESCRIPTION**
24	Allows remote operation
25	KCU-02 module address setting
26	KCU-02 module and PC baud rate setting

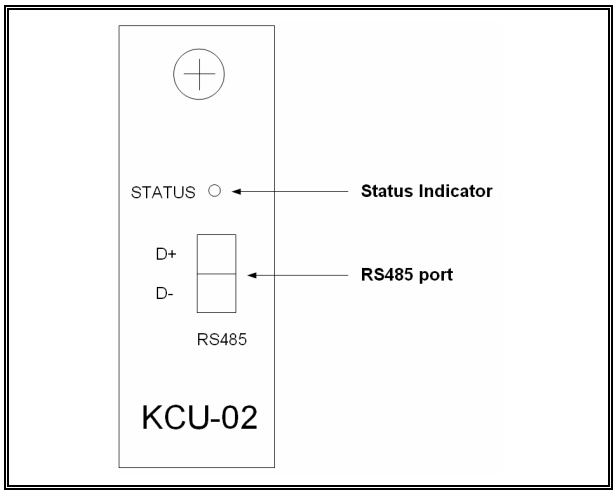
ATS-34	
ITEM	**DESCRIPTION**
22	Allows remote operation
23	KCU-02 module address setting
24	KCU-02 module and PC baud rate setting

ATS-PLC	
ITEM	**DESCRIPTION**
Communication Setting	ON / OFF ATS-PLC Communication Interface
	RS485 Slave Address Setting
	RS485 baud rate Setting

Remark：If remote access is programmed to "Remote access cancelled" or "turn OFFATS-PLC communication interface", user can only execute monitoring and changing system parameter and unable to execute controller command.

SECTION 4 : OPERATION

For more information on KCU-02 Data link status LED indicator, please reference from chapter 5.

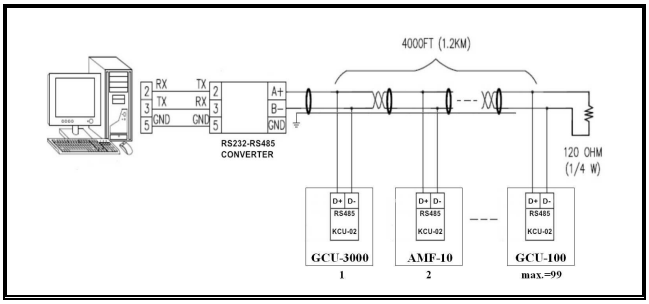


It is strongly suggested to use insulated dual-core braided harness for RS485 wiring connection with insulated grounding harness on one side

When more than one controller are connected in a closed area network, the slave address setting on each controller can not be identical (0 = Cancelled, 1 ~ 99) but the transmission rate needs to be the same (Factory original setting recommended Program setting table item 03：38400)。

From the system connection example, the connection between the PC RS485 device to the KCU-02 should be A+ to D+ and B- to D-. A 120Ω (1/4W) terminal resistor is to be connected to the KCU-02 terminal on the farthest Controller in the connection.

System connection example：



SECTION 5 : STATUS INDICATOR & TROUBLESHOOTINGS

5.1 Through the KCU-02 LED status indicator user can understand the current operating status

STATUS	DESCRIPTION
Flash	KCU-02 communicating with Controller
On	KCU-02 communicating with PC
Flash	KCU-02 abnormal status

5.2 Trouble shootings

STATUS	CAUSE OF FAILURE	TROUBLESHOOTING
Flash	KCU-02 Memory crashed	Replace KCU-01 or contact the nearest dealer
LED Indicator No transition	KCU-02 Do not operate	1. Controller is under AUTO mode: Check the status of controller and if the controller is providing a failure signal, please proceed to eliminate the cause of failure and reconnect KCU-02. If the problem persists please change KCU-02 or contact the nearest dealer. 2. Controller is not under AUTO mode: Check the status of controller and if the controller is providing a failure signal, please proceed to eliminate the cause of failure and reconnect KCU-02. If the controller is operating normally, then please switch the controller to OFF mode and disconnect power for a few seconds then reconnect. If the problem still persists please change KCU-02 or contact the nearest dealer. 3. If the Controller is crashed: Firstly, disconnect power then remove all external module(s). Reconnect controller power and after eliminate the failure disconnect controller power again and connect KCU-02 to the controller and connect to power. If the problem still persists please change KCU-02 or contact the nearest dealer.